

FIG. 1

16a

# Quadrature Mach-Zehnder Modulation Device

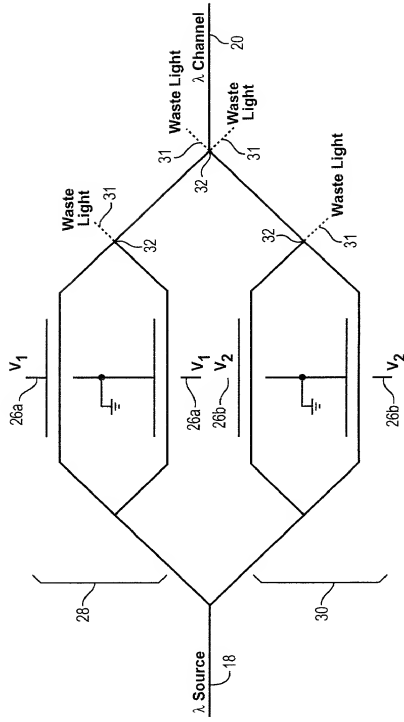
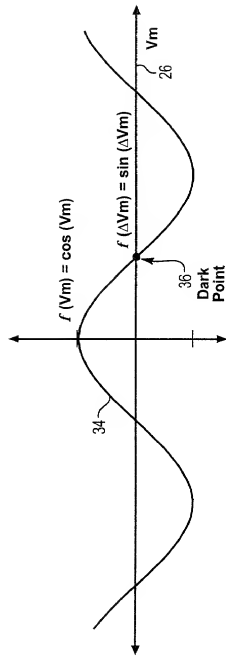


FIG. 2

# **Mach-Zehnder Device Transfer Function**



**FIG. 3**

12

# Modulation Synthesizer

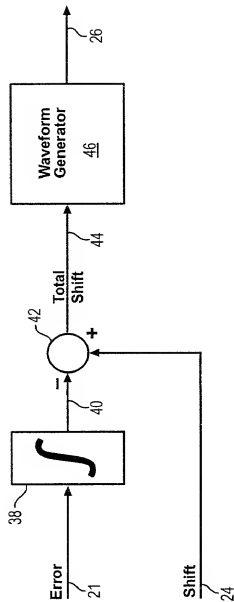


FIG. 4

12

# Quadrature Modulation Synthesizer (With On/Off Data Keying)

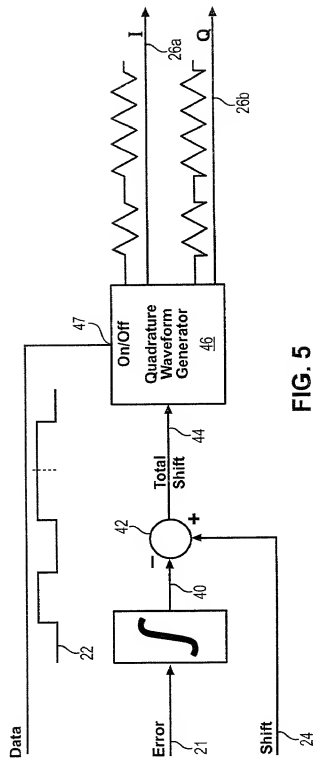


FIG. 5

# Phase Modulation Device

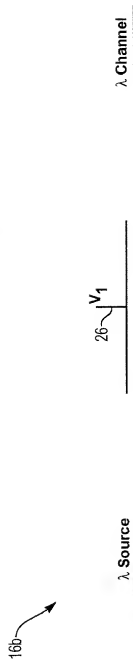


FIG. 6

# Modulation Synthesizer (With Frequency Shift Keying)

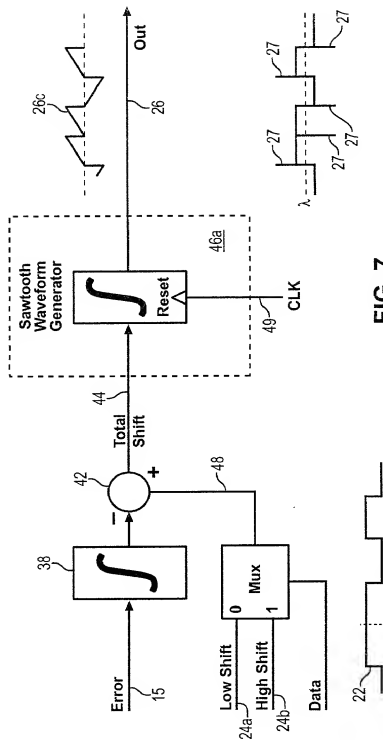


FIG. 7

Wavelength Error Detector  
(Fixed Wavelength)

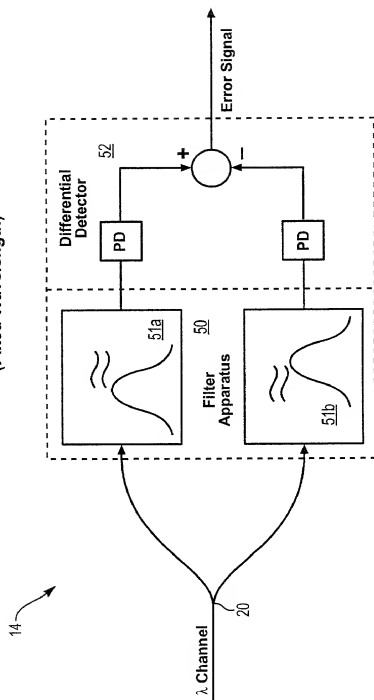


FIG. 8



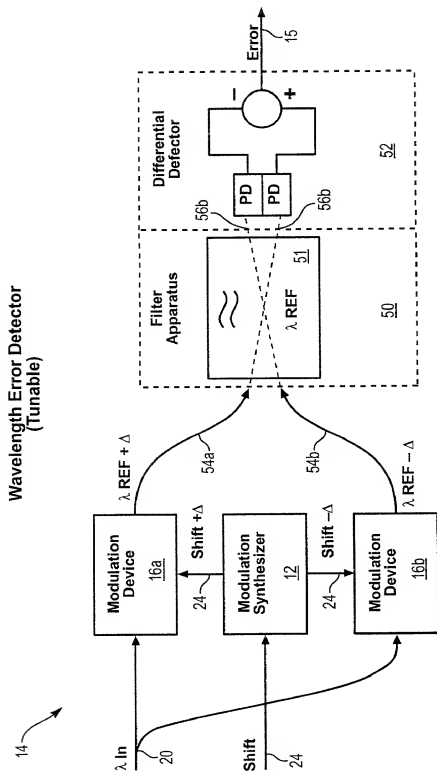


FIG. 9



# Channel Allocation Mechanism

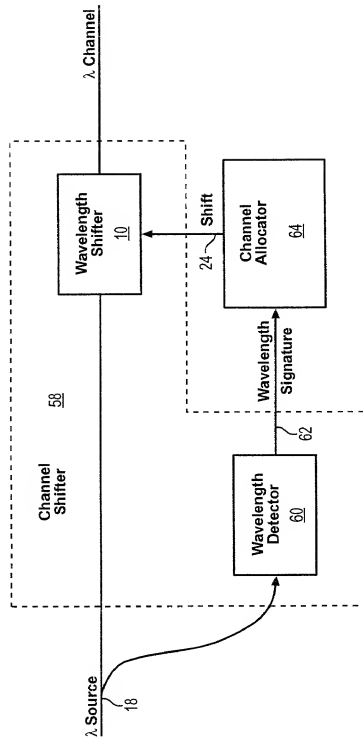


FIG. 11

70 →

# Tunable Wavelength Stabilized Transmitter

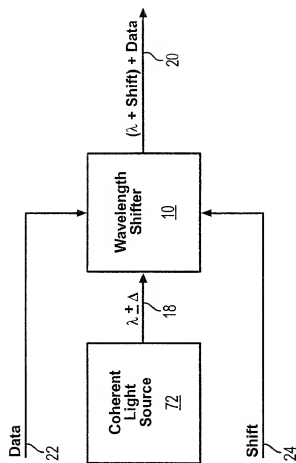
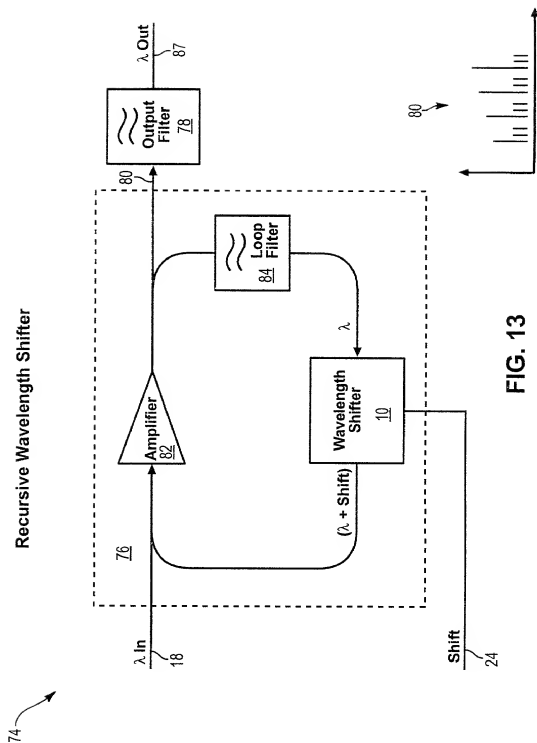


FIG. 12



**FIG. 13**

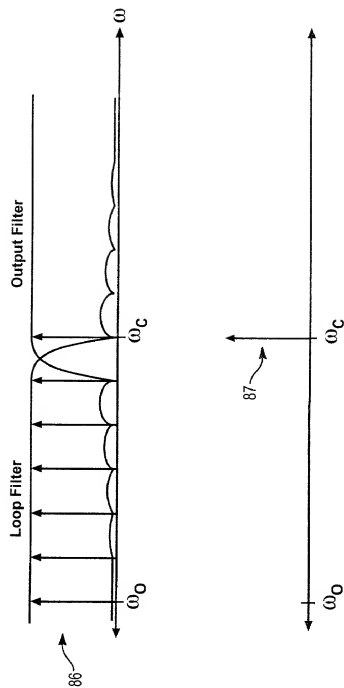


FIG. 14